

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) In a wireless telephone for conducting wireless telephonic communications, the improvement comprising:

a video system integral with said telephone for receiving and transmitting video images, and for viewing said video images, said video system comprising;

5 a camera module housing an image sensor therein, said image sensor including an array of pixels for receiving images thereon, said image sensor further including circuitry means on said first plane and coupled to said array of pixels for timing and control of said array of pixels, said image sensor producing a pre-video signal, a first circuit board mounted in said camera module adjacent said image sensor and electrically coupled to said image sensor, said
10 first circuit board including circuitry means for converting said pre-video signal to a desired video format, said camera module further including a transceiver radio element mounted therein and electrically communicating with said first circuit board to transmit said converted pre-video signal;

a transceiver radio module mounted in the wireless telephone for wirelessly
15 communicating with said transceiver element in said camera module to receive said converted pre-video signal;

a video monitor attached to said wireless phone for viewing said video images, said video monitor electrically coupled to said transceiver radio module for displaying video images processed by said first circuit board.

2. (Original) A device, as claimed in claim 1, wherein:
said pixels are CMOS pixels.

3. (Original) A device, as claimed in claim 1, wherein:
said transceiver radio element and said transceiver radio module communicate by a
Bluetooth communications standard.

4. (Original) A device, as claimed in claim 1, wherein:
said transceiver radio element and said transceiver radio module communicate by an
IEEE 802.15.3 communications standard.

5. (Original) In a wireless telephone for conducting wireless telephonic
communications, the improvement comprising:

a video system integral with said telephone for receiving and transmitting video images,
and for viewing said video images, said video system comprising;

5 a camera module housing an image sensor therein, said image sensor including an
array of pixels for receiving images thereon, said image sensor further including circuitry means
on said first plane and coupled to said array of pixels for timing and control of said array of
pixels, said image sensor producing a pre-video signal;

10 said camera module further including a transceiver radio element mounted therein
and electrically communicating with said image sensor to transmit said pre-video signal;

a transceiver radio module mounted in the wireless telephone for wirelessly
communicating with said radio transceiver element in said camera module to receive said pre-
video signal;

15 a first circuit board mounted in said wireless telephone and electrically coupled to
said transceiver radio module, said first circuit board including circuitry means for converting
said pre-video signal to a desired video format;

a video monitor attached to said wireless phone for viewing said video images,
said video monitor electrically coupled to said transceiver radio module for displaying video
images processed by said first circuit board.

6. (Original) A device, as claimed in Claim 5, wherein:
said pixels are CMOS pixels.

7. (Original) A device, as claimed in claim 5, wherein:
said transceiver radio element and said transceiver radio module communicate by a
Bluetooth standard.

8. (Original) A device, as claimed in claim 5, wherein:
said transceiver radio element and said transceiver radio module communicate by an
IEEE 802.15.3 standard.

9. (Original) In a video telephone for receiving and transmitting telephone
communications to include video signals transmitted by the user of the phone, and video signals
received from the party to whom a call was made, the video telephone including a housing, and a
video monitor for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module wirelessly communicating
with circuitry within said video telephone enabling video signals to be transmitted from said
camera module to said video telephone for viewing by said user or for further transmission to
another party, said camera module including an image sensor housed therein, said image sensor
lying in a first plane and including an array of pixels for receiving images thereon, said image
10 sensor further including circuitry means on said first plane and coupled to said array of said
pixels for timing and control of said array of pixels, said image sensor producing a pre-video
signal, a first circuit board electrically connected to said image sensor and mounted within said
camera module adjacent said image sensor, said first circuit board including circuitry means for
converting said pre-video signal to a desired video format, and a transceiver radio element
15 mounted in said camera module and electrically coupled to said first circuit board for
transmitting said converted pre-video signal wirelessly to the video telephone.

10. (Original) A device, as claimed in claim 9, wherein:
said pixels are CMOS pixels.

11. (Original) A device, as claimed in claim 9, wherein:
said transceiver radio element communicates with the video telephone by a Bluetooth
communications standard.

12. (Original) A device, as claimed in claim 9, wherein:
said transceiver radio element communicates with the video telephone by an IEEE
802.15.3 communications standard.

13. (Original) In a video telephone for receiving and transmitting telephone
communications to include video signals transmitted by the user of the phone, and video signals
received from the party to whom a call was made, the video telephone including a housing, and a
video monitor for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module wirelessly communicating
with circuitry within said video telephone enabling video signals to be transmitted from said
camera module to said video telephone for viewing by said user or for further transmission to
another party, said camera module including an image sensor housed therein, said image sensor
lying in a first plane and including an array of pixels for receiving images thereon, said image
10 sensor further including circuitry means on said first plane and coupled to said array of said
pixels for timing and control of said array of pixels, said image sensor producing a pre-video
signal, and a transceiver radio element mounted in said camera module and electrically coupled
to said image sensor board for transmitting the pre-video signal wirelessly to the video telephone,
wherein the pre-video signal is further processed in the video telephone for viewing.

14. (Original) A device, as claimed in claim 13, wherein:
said pixels are CMOS pixels.

15. (Original) A device, as claimed in claim 13, wherein:

said transceiver radio element communicates with the video telephone by a Bluetooth communications standard.

16. (Original) A device, as claimed in claim 13, wherein:

said transceiver radio element communicates with the video telephone by an IEEE 802.15.3 communications standard.

17. (Original) A video telephone for conducting telephonic communications including receiving and transmitting video images between two parties of a telephone call, said video telephone comprising:

an image sensor lying in a first plane including an array of pixels for receiving images thereon, said image sensor further including circuitry means on said first plane and coupled to said array of pixels for timing and control of said array of pixels, said image sensor producing a pre-video signal;

a first circuit board electrically communicating with said image sensor, said first circuit board including circuitry means for converting said pre-video signal to a desired video format;

a camera module housing said image sensor and said first circuit board;

a transceiver radio element mounted in said camera module and communicating with said first circuit board for wirelessly transmitting the converted pre-video signal;

a transceiver radio module communicating wirelessly with said transceiver radio element for receiving the converted pre-video signal;

a transceiver/amplifier section electrically coupled to said transceiver radio module for amplifying and further transmitting the converted pre-video signal, and for receiving and amplifying video and audio signals transmitted by the other party of the telephone call;

a digital signal processor electrically coupled to said transceiver radio module and said transceiver/amplifier section, said digital signal processor further conditioning said converted pre-video signal prior to said converted pre-video signal being manipulated by said

transceiver/amplifier section, and also for conditioning video and audio signals received by said transceiver/amplifier section from the other party of the telephone call;

a microphone electrically communicating with said digital signal processor for receiving sound and converting the sound to audio signals;

25 a speaker electrically communicating with said digital signal processor for broadcasting audio signals;

a video monitor attached to said video phone, said video monitor for selectively displaying the converted pre-video signals, and for selectively displaying video images received by said transceiver/amplifier section from the other party of the telephone call;

30 a video switch communicating with said transceiver radio module and said digital signal processor for switching video images to be viewed on said video monitor, a user being able to selectively display video images from the converted pre-video signal or video images received by the transceiver/amplifier section from the other party of the telephone call; and

a power supply mounted to said video telephone for providing power thereto.

18. (Original) A device, as claimed in claim 17, wherein:
said pixels are CMOS pixels.

19. (Original) A device, as claimed in claim 17, wherein:
said transceiver radio element communicates with the video telephone by a Bluetooth communications standard.

20. (Original) A device, as claimed in claim 17, wherein:
said transceiver radio element communicates with the video telephone by an IEEE 802.15.3 communications standard.

21. (Original) A video telephone for conducting telephonic communications including receiving and transmitting video images between two parties of a telephone call, said video telephone comprising:

an image sensor lying in a first plane, and an array of pixels for receiving images thereon,
5 said image sensor further including circuitry means on said first plane and coupled to said array of pixels for timing and control of said array of pixels, said image sensor producing a pre-video signal;

a camera module housing said image sensor therein;
a transceiver radio element mounted in said camera module and communicating with said image
10 sensor for wirelessly transmitting the pre-video signal;

a transceiver radio module communicating wirelessly with said transceiver radio element for receiving the pre-video signal;

a first circuit board electrically communicating with said transceiver radio module, said first circuit board including circuitry means for converting said pre-video signal to a desired
15 video format;

a transceiver/amplifier section electrically coupled to said first circuit board for amplifying and further transmitting the converted pre-video signal, and for receiving and amplifying video and audio signals transmitted by the other party of the telephone call;

a digital signal processor electrically coupled to said first circuit board and said
20 transceiver/amplifier section, said digital signal processor further conditioning said converted pre-video signal prior to said converted pre-video signal being manipulated by said transceiver/amplifier section, and also for conditioning the video and audio signals received by said transceiver/amplifier section from the other party of the telephone call;

a microphone electrically communicating with said digital signal processor for receiving
25 sound and converting the sound to audio signals;

a speaker electrically communicating with said digital signal processor for broadcasting audio signals;

a video monitor attached to said video phone, said video monitor for selectively displaying the converted pre-video signals, and for selectively displaying video images received by said transceiver/amplifier section from the other party of the telephone call;

a video switch communicating with said transceiver radio module and said digital signal processor for switching video images to be viewed on said video monitor, a user being able to selectively display video images from the converted pre-video signal or video images received by the transceiver/amplifier section from the other party of the telephone call; and

a power supply mounted to said video telephone for providing power thereto.

22. (Original) A device, as claimed in claim 21, wherein:
said pixels are CMOS pixels.

23. (Original) A device, as claimed in claim 21, wherein:
said transceiver radio element communicates with the video telephone by a Bluetooth communications standard.

24. (Original) A device, as claimed in claim 21, wherein:
said transceiver radio element communicates with the video telephone by an IEEE 802.15.3 communications standard.

25. (Original) In a wireless telephone for conducting wireless telephonic communications, the improvement comprising:

a video system integral with said telephone for receiving and transmitting video images, and for viewing said images, said video system comprising:

a camera module housing an image sensor therein, said image sensor lying in a first plane and including an array of pixels for receiving images thereon, circuitry means electrically coupled to said array of pixels for timing and control of said array of pixels, said circuitry means for timing and control being placed remote from said array of pixels on a second

plane, said image sensor producing a pre-video signal, a first circuit board lying in a third plane
10 and electrically coupled to said image sensor, said first circuit board including circuitry means for
processing and converting said pre-video signal to a desired video format, a transceiver radio
element communicating with said first circuit board for transmitting said converted pre-video
signal;

a transceiver radio module mounted in said telephone for wirelessly receiving said
15 converted pre-video signal; and

a video monitor attached to said wireless phone for viewing said video images,
said video monitor communicating with said transceiver radio module, and displaying video
images processed by said first circuit board.

26. (Original) A device, as claimed in claim 25, wherein:
said pixels are CMOS pixels.

27. (Original) A device, as claimed in claim 25, wherein:
said transceiver radio element communicates with the video telephone by a Bluetooth
communications standard.

28. (Original) A device, as claimed in claim 25, wherein:
said transceiver radio element communicates with the video telephone by an IEEE
802.15.3 communications standard.

29. (Original) In a video telephone for receiving and transmitting telephone
communications to include video signals transmitted by the user of the phone, and video signals
received from the party to whom a call is made, the video telephone including a video monitor
for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module communicating with
circuitry within said video telephone enabling video signals to be transmitted from said camera

module to said video telephone for viewing by said user or for further transmission to another party, said camera module including an image sensor housed therein, said image sensor lying in a first plane and including an array of pixels for receiving images thereon, said image sensor
10 producing a pre-video signal, a first circuit board mounted adjacent said image sensor and electrically connected to said image sensor, said first circuit board including circuitry means for timing and control of said array of pixels and circuitry means for processing and converting said pre-video signal to a desired video format, and a transceiver radio element communicating with said first circuit board for wirelessly transmitting said converted pre-video signal.

30. (Original) A device, as claimed in claim 29, wherein:
said pixels are CMOS pixels.

31. (Original) A device, as claimed in claim 29, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

32. (Original) A device, as claimed in claim 29, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

33. (Original) In a video telephone for receiving and transmitting telephone communications to include video signals transmitted by the user of the phone, and video signals received from the party to whom a call is made, the video telephone including a video monitor for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module communicating with circuitry within said video enabling video signals to be transmitted from said camera module to said video telephone for viewing by said user or for further transmission to another party, said camera module including an image sensor housed therein and lying in a first plane, said image sensor including an array of pixels for receiving images thereon, said image sensor producing a

10 pre-video signal, and a transceiver radio element communicating with said image sensor for wirelessly transmitting said pre-video signal.

34. (Original) A device, as claimed in claim 33, wherein:
said pixels are CMOS pixels.

35. (Original) A device, as claimed in claim 33, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

36. (Original) A device, as claimed in claim 33, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

37. (Original) In a video telephone for receiving and transmitting telephone communications to include video signals transmitted by the user of the phone, and video signals received from the party to whom a call was made, the video telephone including a video monitor for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module communicating with circuitry within said video enabling video signals to be transmitted from said camera module to said video telephone for viewing by said user or for further transmission to another party, said camera module including an image sensor housed therein, said image sensor lying in a first plane and including an array of pixels for receiving images thereon, said image sensor further including
10 circuitry means electrically coupled to said array of said pixels for timing and control of said array of pixels, said circuitry means for timing and control placed remote from said array of pixels on a second plane, said image sensor producing a pre-video signal, a first circuit board electrically connected to said image sensor and lying in a third plane, said first circuit board including circuitry means for processing and converting said pre-video signal to a desired video
15 format, and a radio transceiver element communicating with said first circuit board for wirelessly transmitting said converted pre-video signal.

38. (Original) A device, as claimed in claim 37, wherein:
said pixels are CMOS pixels.

39. (Original) A device, as claimed in claim 37, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

40. (Original) A device, as claimed in claim 37, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

41. (Original) In a video telephone for receiving and transmitting telephone communications to include video signals transmitted by the user of the phone, and video signals received from the party to whom a call was made, the video telephone including a video monitor for viewing the video signals, the improvement comprising:

5 a camera module for taking video images, said camera module communicating with circuitry within said video telephone enabling viewing of said video images on said video telephone and enabling video signals to be transmitted from said camera module for viewing by said party, said camera module including an image sensor housed therein, said image sensor lying in a first plane and including an array of pixels for receiving images thereon, said image
10 sensor further including circuitry means electrically coupled to said array of said pixels for timing and control of said array of pixels, said circuitry means for timing and control placed remote from said array of pixels on a second plane, said image sensor producing a pre-video signal, and a radio transceiver element communicating with said image sensor for wirelessly transmitting said pre-video signal.

42. (Original) A device, as claimed in claim 41, wherein:
said pixels are CMOS pixels.

43. (Original) A device, as claimed in claim 41, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

44. (Original) A device, as claimed in claim 41, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

45. (Original) A video telephone for conducting telephonic communications including receiving and transmitting video images between two parties of a telephone call, said video telephone comprising:

an image sensor lying in a first plane including an array of pixels for receiving images thereon, said image sensor producing a pre-video signal;

a first circuit board electrically communicating with said image sensor, said first circuit board including circuitry means for timing and control of said array of pixels and circuitry means for processing and converting said pre-video signal to a desired video format;

a transceiver radio element communicating with said first circuit board for wirelessly transmitting said converted pre-video signal;

a camera module housing said image sensor, said first circuit board, and said transceiver radio element therein;

a transceiver radio module mounted in said telephone for receiving said converted pre-video signal;

a transceiver/amplifier section electrically coupled to said transceiver radio module for amplifying and further transmitting the converted pre-video signal, and for receiving and amplifying video and audio signals transmitted by the other party of the telephone call;

a digital signal processor electrically coupled to said transceiver radio module and said transceiver/amplifier section, said digital signal processor further conditioning said pre-video signal which is first conditioned by said first circuit board, and also for conditioning video and audio signals received by said transceiver/amplifier section from the other party of the telephone call;

a microphone electrically communicating with said digital signal processor for receiving sound and converting the sound to audio signals;

25 a speaker electrically communicating with said digital signal processor for broadcasting audio signals;

a video monitor attached to said video phone, said video monitor for selectively displaying images from said imaging device, and for selectively displaying video images received by said transceiver/amplifier section;

30 a video switch communicating with said first circuit board and said digital signal processor for switching video images to be viewed on said video monitor; and

a power supply mounted to said video telephone for providing power thereto.

46. (Original) A device, as claimed in claim 45, wherein:
said pixels are CMOS pixels.

47. (Original) A device, as claimed in claim 45, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

48. (Original) A device, as claimed in claim 45, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

49. (Original) A video telephone for conducting telephonic communications including receiving and transmitting video images between two parties of a telephone call, said video telephone comprising:

5 an image sensor lying in a first plane including an array of pixels for receiving images thereon, said image sensor producing a pre-video signal;

a first circuit board electrically communicating with said image sensor, said first circuit board including circuitry means for timing and control of said array of pixels;
a transceiver radio element communicating with said first circuit board for wirelessly

transmitting said pre-video signal;

10 a camera module housing said image sensor, said first circuit board, and said transceiver radio element therein;

 a transceiver radio module mounted in said telephone for receiving said pre-video signal;

 a second circuit board electronically communicating with said radio transceiver module, said second circuit board including circuitry means for converting said pre-video signal to a

15 desired video format;

 a transceiver/amplifier section electrically coupled to said second circuit board for amplifying and further transmitting said converted pre-video signal, and for receiving and amplifying video and audio signals transmitted by the other party of the telephone call;

 a digital signal processor electrically coupled to said second circuit board and said
20 transceiver/amplifier section, said digital signal processor further conditioning said converted pre-video signal which is first conditioned by said second circuit board, and also for conditioning video and audio signals received by said transceiver/amplifier section from the other party of the telephone call;

 a microphone electrically communicating with said digital signal processor for receiving
25 sound and converting the sound to audio signals;

 a speaker electrically communicating with said digital signal processor for broadcasting audio signals;

 a video monitor attached to said video phone, said video monitor for selectively displaying images from said imaging device, and for selectively displaying video images received
30 by said transceiver/amplifier section from the other party of the telephone call;

 a video switch communicating with said second circuit board and said digital signal processor for switching video images to be viewed on said video monitor, a user being able to selectively display video images from the imaging device or video images received by the transceiver/amplifier section from the other party of the telephone call; and

35 a power supply mounted to said video telephone for providing power thereto.

50. (Original) A device, as claimed in claim 49, wherein:
said pixels are CMOS pixels.

51. (Original) A device, as claimed in claim 49, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

52. (Original) A device, as claimed in claim 49, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

53. (Original) A video telephone for conducting telephonic communications including
receiving and transmitting video images between two parties of a telephone call, said video
telephone comprising:

an image sensor lying in a first plane, and an array of pixels for receiving images thereon,
5 said image sensor further including circuitry means electrically coupled to said array of pixels for
timing and control of said array of pixels, said circuitry means for timing and control being
placed remote from said array of pixels on a second plane, said image sensor producing a pre-
video signal;

a first circuit board electrically coupled with said image sensor and lying in a third plane,
10 said first circuit board including circuitry means for processing and converting said pre-video
signal to a desired video format;

a transceiver radio element communicating with said first circuit board to wirelessly
transmit the converted pre-video signal;

a camera module housing said image sensor, said first circuit board and said transceiver
15 radio element;

a transceiver radio module mounted in said videophone for wirelessly receiving said
converted pre-video signal.

a transceiver/amplifier section electrically coupled to said transceiver radio module for
amplifying and further transmitting said converted pre-video signal and for receiving and

20 amplifying video and audio signals transmitted by the other party of the telephone call;

a digital signal processor electrically coupled to said transceiver radio module and said transceiver/amplifier section, said digital signal processor further conditioning said converted pre-video signal which is first conditioned by said first circuit board, and also for conditioning video and audio signals received by said transceiver/amplifier section from the other party of the
25 telephone call;

a microphone electrically communicating with said digital signal processor for receiving sound and converting the sound to audio signals;

a speaker electrically communicating with said digital signal processor for broadcasting audio signals;

30 a video monitor attached to said video phone, said video monitor for selectively displaying images from said imaging device, and for selectively displaying video images received by said transceiver/amplifier section from the other party of the telephone call;

a video switch communicating with said transceiver radio module and said digital signal processor for switching video images to be viewed on said video monitor, a user being able to
35 selectively display video images from the imaging device or video images received by the transceiver/amplifier section from the other party of the telephone call; and

a power supply mounted to said video telephone for providing power thereto.

54. (Original) A device, as claimed in claim 53, wherein:
said pixels are CMOS pixels.

55. (Original) A device, as claimed in claim 53, wherein:
said transceiver radio element transmits by a Bluetooth communications standard.

56. (Original) A device, as claimed in claim 53, wherein:
said transceiver radio element transmits by an IEEE 802.15.3 communications standard.

57. (Original) In a method for conducting video telephone communications with a video telephone, the improvement comprising the steps of:

providing a camera module having an image sensor housed therein;

removing the camera module from connection with the video telephone;

5 pointing the camera module at a targeted object and selectively taking video images of the targeted object;

wirelessly transmitting the video images taken by the image sensor to the video telephone;

processing the video images transmitted by the camera module; and

10 selectively viewing the video images on the video telephone and selectively transmitting the video images to another party.

58. (Original) A method, as claimed in claim 57, wherein:

said image sensor includes a CMOS pixel array.

59. (Currently Amended) In a wireless telephone for conducting wireless telephonic communications, the improvement comprising:

a camera module housing an image sensor therein, said camera module for producing video images of a targeted object;

5 means for wirelessly interconnecting said camera module to said wireless telephone, said means for wirelessly interconnecting enabling said camera module to be selectively displaced ~~at a location remote~~ away from and not in contact with said wireless telephone; and

a video monitor attached to said wireless phone for selectively viewing video images taken by said camera module, and for selectively viewing incoming video images transmitted by
10 another party.

60. (Original) A device, as claimed in claim 59, wherein:

said video telephone includes a housing, and an opening in said housing for receiving said camera module so as to place said camera module in a stored position.

61-64. (Cancel)

65. (Original) In a video telephone for conducting communications including receiving and transmitting video images between two parties of a video telephone call, the improvement comprising:

a camera module housing an image sensor therein;

5 a camera module battery housed within said camera module for providing power to said camera module;

a camera battery charge circuit housed within the video telephone;

a telephone battery housed within the telephone for providing power to said camera battery charge circuit; and

10 wherein the camera module is received in the video telephone so said camera module battery electrically communicates with said camera battery charge circuit to selectively charge said camera module battery.

66. (Currently Amended) A method of powering and recharging a camera module for use with a video telephone, said method comprising the steps of:

providing a video telephone ~~housing~~ including a camera battery charge circuit and a telephone battery housed therein;

5 providing a camera module housing an image sensor therein for taking video images, and a camera module battery housed within said camera module for selectively powering said camera module;

removing said camera module from seated engagement with the video telephone resulting in activation of said camera module battery for powering said camera module; and

- 10 returning said camera module to its seated position with said video telephone and in electrical communication with the battery charge circuit to charge said camera module battery.